

AMENDMENT UNDER 37 C.F.R. § 1.114(c)  
U.S. Application No.: 10/525,705

Attorney Docket No.: Q86114

**AMENDMENTS TO THE DRAWINGS**

Two (2) sheets of replacement drawing in compliance with 37 C.F.R. § 1.84 are submitted herewith. The submitted drawings are formal drawings intended to replace Figure 4 submitted on September 29, 2006 and Figure 6 submitted on November 14, 2008. No new matter is added. The Examiner is respectfully requested to acknowledge receipt of these drawings.

Attachment: Two (2) Replacement Sheets

**REMARKS**

Claims 1-18 are all the claims pending in the application. Claim 10 has been withdrawn from consideration by the Examiner. Claims 1-9 and 11-18 remain rejected on the grounds of record.

**I. Drawing Objection**

The drawings submitted on November 14, 2008 are objected to because Figure 6 is allegedly not a representation of Figure 4 when the screw is bent. Specifically, the Examiner maintains that the elastomer E is missing and the shank relative to the head is offset. The Examiner further maintains that Figure 6 also contains incorrect cross-hatching representing parts 2 and 14 as being elastomeric. The Examiner maintains that Figures 4 and 6 contain a dimension within dimension Lb that is not labeled, and that Figure 6 also contains dimensions Dt and D that do not point to anything.

Applicant is submitting herewith new Figures 4 and 6, correcting the discrepancies noted by the Examiner. No new matter is added.

**II. Claim Objection**

Claim 1 is objected to for reciting a coaxial annular flange that is coaxial with a suction orifice that is not positively claimed. The Examiner further maintains that the comma in line 5 of claim 1 should be deleted, and that line 8 must be rephrased to recite that the screws, not the heads, are fitted.

Applicant has amended claim 1, as suggested by the Examiner, in a manner believed to overcome the objection.

### **III. Claim Rejections - 35 U.S.C. § 112**

Claims 1-9 and 18 remain rejected under 35 U.S.C. 112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1, the Examiner maintains that the preamble clearly indicated that the fastener system is “for fastening a vacuum pump (1) to a wall (2) of a stationary structure (3), having tapped holes (15) provided in the wall (2) of the stationary structure (3).” However, the Examiner asserts that the body of the claim positively recites the wall, having the tapped holes (15), e.g., “their shanks (19) ... are screwed into corresponding ones of the tapped holes” (lines 8-9).

During a discussion with the Applicant’s representative, the Examiner suggested amending claim 1 to recite “...their shanks (19) pass through the through holes (16) and are to be screwed into corresponding ones of the tapped holes (15)...” Accordingly, Applicant has amended claim 1, as suggested by the Examiner, to overcome the rejection.

### **IV. Claim Rejection under 35 U.S.C. § 102 U.S. Patent No. 2,748,578 to Potts (“Potts”)**

Claims 1, 2, 11-14, and 18 remain rejected under 35 U.S.C. 102(b) as allegedly being anticipated by Potts. Applicant respectfully traverses the rejection as follows.

#### **A. Claim 1**

Amended claim 1, recites,

A fastener system for fastening a vacuum pump (1) to a wall (2) of a stationary structure (3) having tapped holes (15) provided in the wall (2) of the stationary structure (3), said fastener system comprising:

a annular flange (14) configured to be provided on a body of the vacuum pump and around a suction orifice (6) such that the flange (14) is coaxial with respect to a center axis of the suction orifice (6);

through holes (16) provided in the annular flange (14); and screws (17) having heads (18), wherein the screws are fitted so that their shanks (19) pass through the through holes (16) and are to be screwed into corresponding ones of the tapped holes (15) in order to secure the vacuum pump (1) to the stationary structure (3) while pressing the flange (14) against the wall (2) of the stationary structure (3); and

wherein each through hole (16) comprises a distal segment (16a) that is cylindrical followed by an enlarged proximal segment (16b) that is cylindrical about the same axis and wherein said shank passes through said distal segment first, and then passes through said proximal segment, so that, in the event of shear forces (20, 21) being applied in any lateral direction in a connection zone between the vacuum pump (1) and the stationary structure (3), the shank (19) of the screw bends and the through hole (16) is offset laterally (D).

In the Amendment filed November 14, 2008, Applicant submitted that the Examiner is improperly ignoring the claim recitations describing the location of the proximal segment relative to the corresponding tapped hole of the stationary structure. The Examiner responds by asserting that because the tapped holes and the stationary structure are not positively recited, the recitations describing the interaction between the recited proximal and distal segments and non-positively recited features are not given patentable weight.

Although Applicant does not necessarily agree with the Examiner, as a path of least resistance, Applicant has amended claim 1 to describe the proximal and distal segments of the through hole with respect to the positively recited screws having heads and shanks. Accordingly, Applicant submits that the recited relative locations of the proximal and distal segments of the through hole must be given patentable weight.

Turning to the disclosure of Potts, with reference to Figure 1 and the Examiner's marked-up attachment thereof submitted with the Office Action of June 6, 2007, the Examiner maintains that the portion labeled A3 corresponds to the claimed distal segment of the claimed through hole, and the portion labeled A4 corresponds to the claimed proximal segment of the claimed through hole. However, when cap screw 32 is inserted into the portion labeled A1, which the Examiner alleges corresponds to the tapped hole, the shank passes through the portion labeled A4 first, followed by the portion labeled A3. That is, under the Examiner's interpretation of Potts, the shank of cap screw 32 would pass through proximal segment first, and then pass through the distal segment.

On the other hand, claim 1 recites the exact opposite relationship, in which the screw shank passes through the distal segment first, and then the proximal segment. Therefore, Potts fails to teach or suggest the claimed relationship between the proximal and distal segments of the through hole.

In addition, Potts fails to teach or suggest that "in the event of shear forces (20, 21) being applied in any lateral direction in a connection zone between the vacuum pump (1) and the stationary structure (3), the shank (19) of the screw bends and the through hole (16) is offset laterally (D)." Applicant submits that this limitation describes how the positively recited screw, shank, and through holes behave under certain physical conditions which imparts structural and functional limitations that must be given patentable weight.<sup>1</sup> In contrast to claim 1, Potts teaches

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<sup>1</sup> "A functional limitation must be evaluated and considered, just like any other limitation of the claim, for what it fairly conveys to a person of ordinary skill in the pertinent art in the context in which it is used." MPEP § 2173.05(g).

that when an excessive torque load is placed upon the driven shaft 12, the shear pins 33 will break to disconnect the motor from the load, whereby the shaft 10 and sleeve 30 will be permitted to rotate freely relative to the driven shaft 12 and its collar 24, nut 55, and thrust bearing ring 48. *See* Potts at col. 3, lines 53-59; Figure 1. In other words, Potts is silent with respect to the behavior of cap screw 32 when a torque load is placed on the driven shaft 12. Therefore, Applicant submits that Potts fails to teach or suggest at least this feature of claim 1.

Accordingly, Applicant submits that claim 1 is patentable over Potts because the cited reference fails to teach or suggest all of the features of claim 1.

**B. Claim 2**

Claim 2 recites, *inter alia*,

wherein the proximal segment (16b) of the through hole (16) allows a maximum lateral offset (D) between the through hole (16) and the corresponding tapped hole that is greater than the radius of the screw shank (19), such that during bending of the screw shank (19), the screw shank comes into abutment against the side wall (16c) of the proximal segment (16b) of the through hole (16); and  
the proximal segment (16b) of the through hole (16) is of a length (Lb) greater than the length (La) of the distal segment (16a) of the through hole (16).

In the Amendment filed November 14, 2008, Applicant submitted that, under the Examiner's interpretation of Potts, the screw shank of Potts would not come into abutment against the side wall of the proximal segment (A4), but would rather come into abutment against the side wall of the alleged distal segment (A3), since the screw shank is not disposed in the proximal segment.

In the present Office Action, the Examiner maintains that claim 2 does not require the shank to be in abutment with the proximal segment, but only recites a capability that Potts is able to achieve. The Examiner further contends that Applicant has not identified any features in the claims that are structurally different than Potts. Applicant respectfully disagrees.

Initially, Applicant notes that Applicant previously submitted that Potts fails to teach or suggest the claimed structure of the through hole including the proximal and distal segments and their interrelationship. *See* Amendment filed November 14, 2008, pages 12-16.

Furthermore, as quoted above, claim 2 recites, “during bending of the screw shank (19), the screw shank comes into abutment against the side wall (16c) of the proximal segment (16b) of the through hole (16).” Nothing in the claim indicates that the claim language is optional or merely a possibility. Rather, the claim positively recites that the screw shank bends, and during such bending, comes into abutment against the side wall. The claim does not recite that the screw shank could come into abutment or might come into abutment against the side wall.

Moreover, it is impossible for the screw shank in Potts to come into abutment against the side wall of the proximal segment (A4). As shown in Figure 1 of Potts and the Examiner’s marked-up attachment thereof submitted with the Office Action of June 6, 2007, the screw shank is disposed in the portion labeled A3, which the Examiner alleges corresponds to the claimed distal segment. Therefore, even if the screw shank of Potts were able to bend, the screw shank would not come into abutment against the sidewall of the proximal segment A4, because the screw shank is not disposed in the portion labeled A4. Accordingly, contrary to the Examiner’s

assertion, it would be impossible for the screw shank of Potts to come into abutment with the sidewall of the proximal segment, which the Examiner analogizes to the portion labeled A4.

Therefore, Applicant submits that claim 2 is patentable over Potts for at least this reason, in addition to being patentable at least by virtue of its dependency from claim 1.

**C. Claims 11-14 and 18**

Claim 11 recites, *inter alia*, “when the screw is inserted into the through hole with the proximal segment closest to the stationary structure relative to the distal segment and secured to the stationary structure, the proximal segment provides a gap in which the shank bends without breaking while maintaining the vacuum pump fastened to the stationary structure.” Therefore, Applicant submits that claim 11 is patentable for at least reasons similar to those set forth for claim 1. Since claims 12-14 are dependent upon claim 11, Applicant submits that such claims are patentable at least by virtue of their dependency. Since claim 18 is dependent upon claim 1, Applicant submits that it is patentable at least by virtue of its dependency.

With further regard to claim 11, Applicant submits that Potts fails to teach or suggest the claimed feature “wherein the proximal segment has an opening abutting the hole in the stationary structure that is sized differently from a portion of the hole in the stationary structure that abuts the opening in the proximal segment.” In particular, the Examiner maintains that the portion labeled A4 in the Examiner’s marked-up attachment of Figure 1 of Potts submitted with the Office Action of June 6, 2007, corresponds to the claimed proximal segment. However, the alleged proximal segment of Potts does not abut the hole in the stationary structure, which the Examiner has labeled A1. The portion labeled A3, which the Examiner analogizes to the



claimed distal segment, that abuts the hole in the stationary structure A1, is the same size as the hole in the stationary structure A1. Therefore, Applicant submits that Potts fails to teach or suggest the above-recited feature of claim 11.

Accordingly, Applicant submits that claim 11 is patentable over Potts for at least this additional reason.

**V. Claim Rejection under 35 U.S.C. § 102<sup>2</sup> U.S. Patent No. 2,083,054 to Cline (“Cline”)**

Claims 11, 12, 15, and 16 remain rejected under 35 U.S.C. 103(a) as allegedly being anticipated by Cline. Applicant respectfully traverses the rejection as follows.

**A. Claim 11**

Amended claim 11 recites,

A fastener system for fastening a vacuum pump, the fastener system comprising:  
a screw comprising a head and a shank;  
an annular flange comprising a through hole, wherein the through hole comprises a distal segment and a proximal segment;  
and  
a stationary structure having a hole for receiving the screw;  
and  
wherein a cross-sectional area of the distal segment taken in a direction perpendicular to a central axis of the through hole is smaller than a cross-sectional area of the proximal segment taken in a direction perpendicular to a central axis of the through hole, and such that, when the screw is inserted into the through hole with the proximal segment closest to the stationary structure relative to the distal segment and secured to the stationary structure, the proximal segment provides a gap in which the shank bends without

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<sup>2</sup> In the Office Action, the Examiner indicates that claims 11, 12, 15, and 16 are rejected under 35 U.S.C. 103(a) as being anticipated by Cline, 2,083,054. Since this rejection is located under the heading “Claim Rejections - 35 USC § 102” in the Office Action, Applicant presumes that the Examiner intended the rejection to be under 35 U.S.C. § 102(b).

breaking while maintaining the vacuum pump fastened to the stationary structure; and  
wherein the proximal segment has an opening abutting the hole in the stationary structure that is sized differently from a portion of the hole in the stationary structure that abuts the opening in the proximal segment.

In the Amendment filed November 14, 2008, Applicant submitted that in the Examiner's marked-up version of Figure 1 of Cline, the alleged opening of the proximal segment A1 is the same size as the alleged hole opening A2. More specifically, Cline teaches that the adjacent ends of apertures 14 and 15 are preferably enlarged as shown at 16 and 17. *See* Cline at col. 1, lines 26-29. Cline does not teach that the enlarged adjacent ends of apertures 14 and 15 are sized differently, but rather indicates in Figure 1, that the enlarged portions 16 and 17 are symmetrical about horizontal gasket 18. *See* Cline at Figure 1. Applicant further submitted that Cline fails to teach "the proximal segment provides a gap in which the shank can bend while maintaining the vacuum pump fastened to the stationary structure." Rather, Cline teaches that under impact, the bolts will be sheared or pulled apart at the grooves 22, so that the entire upper structure can fall to the ground without injury to the lower structure. *See* Cline at col. 2, lines 5-12.

In the present Office Action, the Examiner maintains that the lead line of A1 refers to the enlarged portion 16 of aperture 14, while A2 refers to the narrower portion of aperture 15. Thus, the Examiner contends that elements A1 and A2 refer to openings that are not the same size. The Examiner further maintains that since claim 11 recited that the shank "can bend," the claim does not require that the shank bends.

Applicant does not agree with the Examiner's overly broad interpretation of the claim language, but as a path of least resistance, has amended claim 11 to clarify that the opening of

the proximal segment abutting the hole in the stationary structure is sized differently from a portion of the hole in the stationary structure that abuts the opening in the proximal segment. Applicant submits that element A1, which the Examiner analogizes to the claimed opening of the proximal segment, is an opening abutting element A2, which the Examiner analogizes to the hole in the stationary structure, that is the same size as the portion of A2 which abuts the opening of A1. Therefore, Cline fails to teach or suggest “the proximal segment has an opening abutting the hole in the stationary structure that is sized differently from a portion of the hole in the stationary structure that abuts the opening in the proximal segment.”

With respect to the Examiner’s position that claim 11 does not require that the shank bends, Applicant has amended claim 11 to positively state that the screw shank bends without breaking. As discussed above, the bolts 19 of Cline are designed to break to allow the upper and lower portions 10 and 11 to separate. Therefore, Cline fails to teach or suggest that “the shank bends without breaking while maintaining the vacuum pump fastened to the stationary structure.”

Accordingly, Applicant submits that claim 11 is patentable over Cline because the reference fails to teach or suggest all of the features of claim 11.

**B. Claims 12, 15, and 16**

Since claims 12, 15, and 16 are dependent upon claim 11, Applicant submits that such claims are patentable over Cline at least by virtue of their dependency.

With further regard to claim 15, Applicant previously submitted that Cline fails to teach or suggest a shank that includes a smooth shank segment of a diameter substantially smaller than

a diameter of the distal segment of the through hole, and is followed to a free end by a threaded segment. More specifically, the cylindrical portion of hole 14 of Cline, which the Examiner analogizes to the claimed distal segment, has nearly the same diameter of the elongated shank segment of the bolt 19. *See* Cline at Fig. 1.

In the present Office Action, the Examiner notes that the term “nearly” does not mean the same. Further, the Examiner maintains that if the diameter of the distal segment were the same as that of the shank, the shank would not be allowed to be inserted into the distal segment. This can only occur if the shank is smaller than the hole. The Examiner contends that these are the mechanics used to allow something to be inserted into a hole otherwise it would have been press-fitted when the shank is larger than the hole.

Applicant believes that the Examiner may misunderstand the Applicant’s previous argument. Regardless of whether the diameter of the distal segment of Cline is the same or “nearly” the same as the diameter of the smooth shank segment of Cline, it does not change the fact that the diameter of the smooth shank segment of Cline is not substantially smaller than a diameter of the distal segment. Therefore, Applicant submits that Cline fails to teach or suggest a smooth shank segment of a diameter that is substantially smaller than a diameter of the distal segment of the through hole.

Accordingly, Applicant submits that claim 15 is patentable over Cline for at least this additional reason.

With further regard to claim 16, Applicant previously submitted that Cline is completely devoid of any teaching regarding the diameter of the smooth shank segment relative to the

diameter of the through hole, much less that the diameter of the smooth shank segment is less than or equal to 80% of the diameter of the distal segment of the through hole.

In the present Office Action, the Examiner maintains that “one can simple [*sic*] take a ruler and measure the diameter of the shank and that of [the] distal segment, i.e., the enlarged portion A1 of the hole. Note that the dimension at A1 is larger than that of the shank.”

Applicant submits that the Examiner is inconsistently interpreting the reference. In rejecting claim 16, the Examiner maintains that the enlarged portion A1 of the hole shown in Figure 1 of Cline corresponds to the claimed distal segment. However, in rejecting claim 11, the Examiner maintains that the enlarged portion A1 corresponds to the claimed proximal segment. *See* Office Action at pages 7 and 20. Accordingly, the Examiner’s interpretation of Cline in rejecting claim 16 is unsupportable.

Furthermore, Cline does not disclose that the drawings are to scale and, therefore, by measuring the diameter of the shank and that of the distal segment, the Examiner is taking away more information than is permitted. Indeed, proportionality of features in a drawing is not evidence of actual proportions when the drawings are not to scale. *See* MPEP § 2125.

Moreover, even if the portion of Cline that the Examiner analogizes to the distal segment is larger than that of the shank, such a teaching is insufficient to anticipate the claimed feature that the diameter of the smooth shank segment is less than or equal to 80% of the diameter of the distal segment of the through hole.<sup>3</sup> That is., Cline fails to teach or suggest that the diameter of

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<sup>3</sup> “The identical invention must be shown in as complete detail as is contained in the ...claims.” MPEP § 2131 (citing *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236 (Fed. Cir. 1989).

the smooth shank segment must be less than or equal to a maximum value of 80% of the diameter of the distal segment of the through hole.

Accordingly, Applicant submits that claim 16 is patentable over Cline for at least these additional reasons.

**VI. Claim Rejections under 35 U.S.C. § 103(a) over Potts in view of U.S. Patent No. 5,220,854 to Allart et al. ("Allart")**

Claims 5, 6, and 15-17 remain rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Potts in view of Allart.

Since claims 5 and 6 are dependent upon claim 1, and Allart fails to cure the deficient teachings of Potts with regard to claim 1, Applicant submits that such claims are patentable at least by virtue of their dependency. In particular, regarding claim 1, the grounds of the rejection again reverse the locations of the distal and proximal segments in order to argue that Allart teaches the limitations of claims 5 and 6, which depend from claim 1. This interpretation is contrary to the clear language of the claim. In addition, claim 11 contains features that are similar to the features discussed above in conjunction with claim 1. Since claims 15-17 are dependent upon claim 11, and Allart fails to cure the deficient teachings of Potts with regard to claim 11, Applicant submits that such claims are patentable at least by virtue of their dependency. Therefore, Applicant requests the Examiner to reconsider and withdraw the rejection of claims 5-6 and 15-17 in view of Potts and Allart for at least these reasons.

**VI. Claim Rejections under 35 U.S.C. § 103(a) over U.S. Patent No. 2,560,413 to Carlson (“Carlson”) in view of U.S. Patent No. 1,831,430 to Weis (“Weis”)**

Claims 1, 3, 4, 7, 9, and 11-17 remain rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Carlson, 2,560,413, in view of Weis, 1,831,430. Applicant respectfully traverses the rejection.

**A. Claim 1**

In the Amendment filed November 14, 2008, Applicant submitted that Carlson fails to teach the claimed feature that “the through hole (16) is allowed to be offset laterally (D) correspondingly relative to the associated corresponding tapped hole (15).” In fact, Carlson teaches the exact opposite, in that a bushing is used to maintain the alignment of the bores, not allowing the holes to be laterally offset from each other.

In the present Office Action, the Examiner responds by asserting that the above-recited feature is not a structural feature but rather a capability or what the invention is intended to perform. The Examiner further maintains that Carlson teaches all of the claimed structural features, such that it would be inherent that the through hole would be allowed to offset laterally relative to the tapped hole. *See* Office Action at page 20. In response to Applicant’s argument that Carlson teaches a bushing that is used to prevent the holes from offsetting, the Examiner maintains that he is only relying on the teaching of the flange, screws, and holes, not the assembled device. The Examiner further contends that the other components in Carlson are not needed as the claimed fastening system is not an assembled system but rather a listing of parts. Lastly, the Examiner notes that the claim does not set forth any positive limitation that the holes are actually offset.

Applicant has amended claim 1 to recite that “the shank (19) of the screw bends and the through hole (16) is offset laterally (D). That is, the claim positively describes the behavior of the screw and the through hole under certain physical conditions, which imparts a structural limitation that must be given patentable weight. Further, the Examiner maintains that the above feature is a functional limitation that does not impart any structure to the claimed fastener system. Then, the Examiner inconsistently asserts that claim 1 is merely a listing of three parts. Applicant does not understand how claim 1 can recite alleged functional language that the Examiner maintains does not distinguish over the cited references, and at the same time merely contain a listing of parts. Claim 1 is clearly not just a listing of parts. As required by 35 U.S.C. § 112 to meet the standards for enablement and definiteness, claim 1 describes the interaction between the flange, the holes provided therein, and the screws, as well as how the holes and screw behave under shear forces in any lateral direction.

Furthermore, as claim 1 positively recites the bending of the screw and the offsetting of the hole, the Examiner must give this limitation patentable weight, even if the Examiner construes this feature as being a functional limitation. Indeed, the MPEP explicitly states that “[a] functional limitation must be evaluated and considered, just like any other limitation of the claim, for what it fairly conveys to a person of ordinary skill in the pertinent art in the context in which it is used.” MPEP § 2173.05(g). The present Amendment obviates the Examiner’s assertion that the claim recitation merely describes a capability of the claimed fastener system.

Moreover, the Examiner’s reliance on only some portions of Carlson, while ignoring other portions of the reference, is improper. The MPEP clearly states that prior art must be



considered in its entirety, including disclosures that teach away from the claims. MPEP § 2145.

Therefore, the Examiner cannot simply ignore the portions of the reference that do not support the Examiner's position. As described in detail in the Amendment filed November 14, 2008, Carlson goes to great lengths to describe how dowel bushing 32 is used as a rigid guide in order to provide alignment between the bearing cap 12 and bearing base 14 (*i.e.*, prevent offsetting). See Carlson at col. 4, lines 56-58. For the Examiner's convenience, Applicant is providing the nine separate citations from Carlson submitted in the Amendment filed November 14, 2008, that describe how the bushing prevents the holes from offsetting.

...wherein the dowel members possess sufficient strength and rigidity to maintain the initial established arrangement between the members regardless of repeated separation and reassembly thereof. (Col. 1, lines 12-16).

Through the provision of dowel members possessing characteristics of being deformable to correct for inaccuracies of machining between mating dowel holes and yet having sufficient strength to maintain their established deformation as required to align two members adapted to be joined together. (Col. 1, lines 24-30).

An object of the invention is the provision of an assembly of cooperating member maintainable to a desired arrangement therebetween by a ductile dowel member...said dowel member...effective to provide for the established alignment therebetween after any disassembly and reassembly thereof. (Col. 1, lines 37-47).

Another object of the invention is the provision of...means of aligning two member relative to one another wherein permanent established alignment therebetween is necessary. (Col. 1, lines 48-52).

By providing a dowel member,...it is possible to economically provide for the fabrication of two members...for

establishing a fixed relationship between members requiring an established positioning relative to one another. (Col. 3, lines 11-20).

Through the use of dowel bushings, a positive assurance of the alignment of the bearings sections is achieved to correct for the tendency of the bearing sections to change in shape or warp after the machining thereof and the removal of the cap screw bolts therefrom. (Col. 3, lines 37-42).

The bushings 32 in forming part of the bearing assembly become such prior to the boring of the main bearing opening 18-20 in that they assure a positive means for properly aligning the bearing cap and base sections together after a machining thereof and wherein normally upon the disassembly of the sections after machining because of the inherent tension in the metal causing a warpage of either one or both of the bearing members 12 and 14 tending to spread the bolt holes apart. (Col. 4, lines 23-33).

It is requisite that the respective openings 18 and 20 be adaptable to alignment to one another for the life use of the members 12 and 14 and to this end the bushings 32 provide medium for assuring same wherein upon the disassembling of the members 12 and 14 from one another after a machining of servicing operation the warpage resulting in the members due to the inherent tension thereof as results from a machining operating spreads the mating bores 30 apart. (Col. 5, lines 53-63).

...even though the bushings are ductile to an extent to so be deformed initially in assembling the members 12 and 14 together, they have sufficient rigidity as to overcome the warpage tension of the members effective to align the members relative to one another without further distortion of deformation thereof. (Col. 5, lines 67-73).

The above-cited portions of Carlson clearly teach that the bushing is used to maintain the permanent alignment of the bores, and does not allow the holes to be laterally offset from each other. Thus, the claimed feature is not present at all in the reference, much less inherently disclosed by the reference, as asserted by the Examiner. In fact, Carlson expressly teaches away

from allowing the holes to offset laterally by teaching a dowel bushing having sufficient strength to maintain the alignment of the holes.

Since Weis fails to cure the deficient teachings of Carlson with respect to claim 1, Applicant submits that claim 1 is patentable over Carlson and Weis for at least the foregoing reasons.

**B. Claims 3, 4, 7, 9, and 11-17**

Since claims 3, 4, 7, and 9 are dependent upon claim 1, Applicant submits that such claims are patentable over Carlson and Weis at least by virtue of their dependency.

With regard to claim 11, Applicant submitted in the Amendment filed November 14, 2008, that the stepped bore 22 of the bearing cap 12 of Carlson is disposed in alignment with the stepped bore 24 of the bearing body 14. The Examiner alleges that the portion of the stepped bore 22 labeled A2 in the Examiner's marked-up version of Figure 4 of Carlson included in the Office Action dated June 6, 2007, corresponds to the claimed proximal segment. However, portion A2 is the same size as the hole 16 in the stationary structure, which the Examiner analogizes to the bearing body 14. In other words, Carlson teaches that the proximal segment of the through hole, which is the portion closest to the stationary portion to which the flange is to be attached, is the same size as the hole in the stationary structure. Therefore, Applicant submitted that Carlson fails to teach that "the proximal segment has an opening that is sized differently from an outermost opening of the hole in the stationary structure."

In the previous Office Action, the Examiner maintained that the opening in the structure is actually bigger due to the offset, i.e., the taper, on member 32 which requires a bigger hole.

The Examiner maintains that the offset provides evidence that the hole is of a different size since member 32 is wider at the lower area. *See* Office Action at page 19. However, as discussed above, the bushings are able to be initially deformed to accommodate slightly offset bores 22 and 24. In other words, when bores 22 and 24 are slightly offset, bushing 32 is used to align the bores to receive cap screw 16. Figure 4 merely shows that the bushing 32 is deformed to accommodate the offset bores 22 and 24, but does not show that the bores 22 and 24 are different sizes. Thus, Applicant submitted that there is no teaching or suggestion that the bores 22 and 24 are different sizes. Rather any offset between the same size bores 22 and 24 is remedied by bushing 32.

Furthermore, Applicant submitted that the Examiner is relying solely on the drawings of Carlson to support his position that bores 22 and 24 are sized differently. However, Carlson does not disclose that the drawings are to scale and, therefore, the Examiner is taking away more information than is permitted. Indeed, proportionality of features in a drawing is not evidence of actual proportions when the drawings are not to scale. *See* MPEP § 2125.

In the present Office Action, the Examiner completely ignores Applicant's arguments with regard to claim 11. Accordingly, Applicant submits that claim 11 is patentable over Carlson and Weis for at least the foregoing reasons. Therefore, Applicant respectfully requests the Examiner to substantively respond to Applicant's arguments or withdraw the rejection of claim 11 under 35 U.S.C. § 103(a) over Carlson and Weis.

Since claims 12-17 are dependent upon claim 11, Applicant submits that such claims are patentable over Carlson and Weis at least by virtue of their dependency. With further regard to

claims 12-17, Applicant previously submitted that Carlson fails to teach any of the claimed features, and that the Examiner has not identified a specific portion of the reference to support his position. In the present Office Action, the Examiner once again fails to provide supporting citations to the reference to support the rejection. Therefore, Applicant respectfully requests the Examiner to identify the portions of Carlson the Examiner believes teaches the features of claims 12-17, or withdraw the rejection of such claims.

With particular regard to claim 12, the Examiner alleges that the portion of the stepped bore 22 labeled A2 in the Examiner's marked-up version of Figure 4 of Carlson included in the Office Action dated June 6, 2007, corresponds to the claimed proximal segment. In the previous Office Action, the Examiner maintained that the stepped bore 24 of the bearing body 14 is actually bigger than the alleged proximal segment A2 due to the offset, i.e., the taper, on member 32 which requires a bigger hole.

However, claim 12 recites that the proximal segment has an opening that is larger than the hole in the stationary structure. Thus, the Examiner cannot contend that the hole in stationary structure of Carlson is larger than the alleged proximal segment in rejecting claim 11, and then take the opposite position in rejecting claim 12.

Accordingly, Applicant submits that Carlson fails to teach or suggest that the proximal segment has an opening that is larger than the hole in the stationary structure, which the Examiner admits in rejecting claim 11. Claim 12 is patentable over Carlson and Weis for at least this additional reason.

**VII. Claim Rejection under 35 U.S.C. § 103(a) over Carlson, in view of Weis, in further view of U.S. Patent No. 5,203,441 to Monette ("Monette")**

Claim 8 stands rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Carlson, in view of Weis, and further in view of newly cited Monette.

Since claim 8 is dependent upon claim 1, and since Monette fails to cure the deficient teachings of Carlson and Weis with respect to claim 1, Applicant submits that claim 8 is patentable over the cited references at least by virtue of its dependency.

**VIII. Claim Rejection under 35 U.S.C. § 103(a) over Cline**

Claims 13, 14, and 17 stand rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Cline taken alone.

Since claims 13, 14, and 17 are dependent upon claim 11, Applicant submits that such claims are patentable over Cline at least by virtue of their dependency.

**IX. Conclusion**

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

AMENDMENT UNDER 37 C.F.R. § 1.114(c)  
U.S. Application No.: 10/525,705

Attorney Docket No.: Q86114

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

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